Addendum
to the
Necedah National Wildlife Refuge
Environmental Assessment

Purpose and Need: The purpose of this Addendum is to clarify actions that will be taken under the selected alternative for the Fire Management Plan Environmental Assessment that was approved on March 22, 2002 when a Finding of No Significant Impact (FONSI) was signed. This includes documenting the need for fuels management treatments, including specifically the use of mechanical fuels treatments on Necedah National Wildlife Refuge (NWR) while reaffirming these needs based upon the context of previously written and approved management plans and the construction of a fire break trail on the Eastern boundary of the Refuge.

Background: A Fire Management Plan (FMP) and Environmental Assessment (EA) for Necedah NWR was prepared and approved on 3/22/02. In this fire plan and EA, the preferred alternative does not sufficiently describe the need for mechanical fuel treatments to properly treat Refuge vegetation and conduct habitat management activities. The Biological Opinion (March 2002) established that mechanical fuels treatments have no adverse effect upon the threatened and endangered species found on the Refuge. Accordingly, the plan alternatives are in compliance with Section 7 consultation requirements. In the alternatives matrix of the Environmental Assessment (EA), the preferred alternative specifically lists the need for prescribed fire treatments but neglects to list mechanical treatment as an approved activity even though in section 2.5 (Endangered Species), of the EA, mechanical management is implied for all alternatives. This oversight is corrected by adding "mechanical treatments" to the preferred alternative through the development of this Addendum.

Mechanical treatments are defined as the use of equipment to thin, clearcut or remove biomass or vegetative debris to reduce or eliminate hazardous fire conditions.

Preferred Alternative:

The preferred alternative as presented in the Environmental Assessment to the current Necedah Fire Management Plan is as follows:

2.6.2 Alternative A - *Full wildfire suppression and use of prescribed fire to achieve resource objectives (No Action, Preferred)*

Under Alternative A, management direction at the Refuge would proceed in accordance with the existing Fire Management Plan. This alternative provides for the implementation of the Refuge's Fire Management Plan (see plan for details) use of prescribed fire on the Refuge to restore, enhance, and maintain upland and wetland communities. This is considered the "No Action" alternative since prescribed fire and fire suppression are current and ongoing activities.

Clarified and Detailed Description of Proposed Action:

As stated, there is a need to include mechanical fuels treatments into the preferred alternative and not rely upon their implied use. The fuels management work includes, development of a fuels break along the Refuge's eastern boundary. (See attached map of project location). Included in this project is the need to utilize mechanical treatments including but not limited to timber harvesting, chipping, hydro-axe use, hauling of forest products and biomass utilization, mowing, stump removal, etc. These activities have all been addressed in the previously approved Forest Management Plan, approved 8/9/89 and in the revised Forest Management Plan, approved 9/2/94, in addition to mechanical treatments mentioned in the afore named Fire Management Plan. Timber harvest is an important tool used to accomplish Refuge ecological objectives, as stated in the approved 3/22/02 FMP.

To mitigate the fire danger and wildfire risk to the local community, the fuels break project along the Refuge eastern boundary will reduce fuel loadings and provide a safety buffer separating the Refuge from non-federal lands. This Wildland Urban Interface (WUI) project fully meets the goals and objectives of the National Fire Plan.

The fuels break project consists of cutting and removing all timber in a 50 foot wide strip along the 13.3 mile Eastern boundary of the Refuge. (See attached map). From the West edge of this 50 foot cleared strip and extending further westward an additional 200 feet, all jack pine (Pinus banksiana) are cut and removed. The remaining area included in this 200 foot wide strip is cut selectively to meet proper silvicultural guidelines. The clear cut area totals approximately 79 acres with an additional 318 acres selectively cut.

Fuels break construction includes filling several low areas to provide a drivable path. The maximum potential fill has been calculated to cover 7.8 acres and require approximately 24,844 cubic yards of fill. To mitigate any effects of filling sections of wetlands to construct a passable roadway, equal areas of wetland would be restored elsewhere on the Refuge at a ratio no less than 1.5:1 (One and a half acres restored for every acre filled). Additionally, every effort will be made to reduce the amount of fill needed and to avoid any impact on high quality wetland areas. (See map). The need for graveling and rotovation (vegetation disruption) to existing firebreaks is addressed in the approved FMP. This addendum incorporates the need for these treatments to new firebreak construction.

Further, FWS Service Manual 095 FW 3 Wildland Fire Management, attached to the approved FMP, specifically addresses fuels management concerns under section 3.9 D. Fuels Management Project Rehabilitation. It states, "1) Fuels management project rehabilitation consists of actions taken as part of fuels management projects to prevent unacceptable resource degradation, to minimize threats to life or property resulting from the project, or to promote the reestablishment of ecosystem structure and functions consistent with land management planning objectives. Fuels treatments (either through application of fire, mechanical, or other means) may result in conditions that require additional actions to: …"

The proposed hazardous fuels treatments, WUI projects and fuels breaks fully meet the intent of this direction.

Additionally, with conservation measures implemented, none of the mechanical management activities would have adverse effects upon threatened and endangered species. (See biological opinion of the Comprehensive Conservation Plan, March, 2002). On those wetlands receiving fill to construct a passable track, some dust and noise may occur from construction activity. This action may be mitigated by the fact that minimal fill of wetlands is ultimately needed along with requiring road work to be completed during the work week and not on weekends when public traffic on Refuge and area roads increases. If needed, haul routes on gravel roads through local housing areas will be oiled to further reduce dust from haul traffic. There are no known cultural resource sites within proposed project boundaries.

Effected Environment:

As shown on the attached project location map and described in this addendum, the fuels break project area is located along the Eastern boundary of the Refuge. The terrain is flat with essentially no relief that could cause sediment and erosion problems.

The vegetation and cover types consist of oak and mixed hardwood stands containing a mixture of seedlings, saplings, poletimber and sawtimber sized trees, scattered pockets of high quality white pine containing many valuable large sawlog sized trees along with a component of red pine and the stands of jack pine. Mitigation measures include preserving and protecting the scattered white pine and red pine stands to enhance Refuge biological diversity and also provide a fire adapted ecotype within the greater Refuge ecosystem. The proposed fire break circumvents the quality white and red pine stands.

The wetlands to be impacted along the fire break boundary are generally sedge and grassed wetlands, and may contain willow and lowland brush species. They do not contain ponded water essential for waterfowl production. Mitigation actions will maintain diversity and escape cover in adjacent and nearby stands.

Environmental Consequences:

The use of mechanical fuels treatments in the construction and maintenance of this fuel break provide both long and short term benefits to the Refuge and local community. The fuel break provides an immediate safety zone separating the dense vegetation of the Refuge from the local community. Conducting harvest operations under frozen ground conditions eliminates nearly all concerns regarding soil disturbance and compaction. Additionally, available snow cover further reduces and eliminates ground disturbance.

When possible, harvest operations may be conducted during winter conditions to eliminate the disturbance to nesting activities of all birds and most importantly to the two Federally-listed bird species that utilize the Necedah NWR; Bald eagle (*Haliaeetus leucocephalus*), and Whooping crane (*Grus Americana*). Essentially no effect on species

will occur as the project area is removed from their favored habitats and the majority of the work will occur after these have migrated south. Mechanical treatments such as mowing, chopping, and slashing are typically conducted during the lush growing season so as to provide the maximum benefit derived from vegetation removal.

The project is expected to benefit the Federally listed Karner Blue Butterfly (KBB) by creating an additional 79 acres of habitat.

Mechanical treatments will benefit the fourth Federally-listed species, the Eastern Timber Wolf (*Canis lupus*) by increasing prey diversity along the eastern boundary.

No known cultural resources are found in the project area.

The environmental consequences of utilizing mechanical fuels treatments are minor as compared to the effects of no-action. The described mechanical fuels treatments reduce excessive fuel loadings and stocking within the project areas; eliminate high fire prone timbered stands such as jack pine, along the Refuge boundary; and create a safety zone separating the Refuge from the adjacent community that provides additional buffering in the event of wildfire.

Wetland mitigation as described earlier will properly address concerns associated with any fill that may be needed in construction of the fuels break. As stated, wetland areas will be avoided whenever possible to reduce the total cumulative effect on them.

If the No-Action alternative (no mechanical treatments utilized) was chosen, potentially dire negative environmental consequences could occur. There would be no removal of excess and over-stocked timber; the relatively short-lived and fire prone jack pine stands would continue to pose an ever increasing fire threat to Refuge and local community safety. Additionally, without a fuels break in place, access to the Eastern Refuge boundary would remain difficult, hampering fire management efforts in the event of a wildfire.

Further, with no management of timbered stands, no early successional vegetation would be maintained ultimately leading to a decline in habitat for the threatened and endangered species living on the Refuge along with those species favoring or requiring grasslands for their habitat.